

A National Temperature Record at Loma, Montana

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On January 14th-15th, 1972, a National Weather Service cooperative observer site located in Loma, Montana recorded a 103F temperature change (-54F to 49F) within twenty-four hours, thereby breaking the previous national record of 100F set on January 23-24th, 1916 in Browning, Montana.

The record is discussed at this time for the following two reasons. In 1972, there was a misunderstanding the temperature change was not valid because it occurred over two calendar days and was not pursued. Secondly, there was no mechanism to analyze national climate records. The National Climate Extremes Committee, established by the NWS Office of Meteorology (Uccellini, Director) prior to the onset of the El Nino in 1997-98 and chaired by NOAA's National Climatic Data Center, was requested by the Great Falls, Montana office in April, 2002 to evaluate this event and recommend if a new national twenty-four hour record had been established.

This paper will present the synoptic conditions which resulted in the extreme temperature rise, describe the siting, instrument, and observer standards at the site as well as discuss the evaluation process the National Climate Extremes Committee utilizes to determine a potential national record.

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